

Slit

Dart Aerospace Ltd.

Date: Friday, 11/18/2005 3:15:04 PM
User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : MID TUBE ASSEMBLY
Job Number : 24866	
Estimate Number : 10469	
P.O. Number : N/A	Part Number : D3391023
This Issue : 11/18/2005 S.O. No. : N/A	Drawing Number : D3391 REV C
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : LANDING GEAR	Drawing Revision : C
Previous Run : 24442	Material : N/A
Written By : SEE COMMENT BELOW	Due Date : 12/20/2005 Qty: 5 Um: Each
Checked & Approved By : SEE ABOVE USER & DATE	
Comment : Est. A 05.10.20 New Issue KJ/EC	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D25001100	Skidtube Extrusion
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

SKIDTUBE EXTRUSION

Pick:

Qty	Part Number	Description	Batch
1	D2500-1-100	Extrusion	B24593

2.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1-Cut tube to finish length as per Dwg D3391

2-Identify as D3391-023

3-Drill pilot holes using DT8796 as per Dwg D3391

4-Open float bag holes to Ø0.250" as per Dwg D3391 using DT8796D visual aid Jig

5-C'sink float bag holes as per Dwg D3391

6-Open remaining holes to Ø0.438" as per Dwg D3391

7-Remove indexing ridge on aft end of skidtube as per Dwg D3391

8-Deburr

9-Drill #30 pilot holes using wearplate Jig DT8217/Identify Ø0.208" holes with paint marker

10-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.208" (14 holes) as per Dwg D3391

11-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.250" and c'sink (20 holes) as per Dwg D3391

12-Deburr and blow out all chips from inside tube

3.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-023 PAR #: N/A Fault Category: Supplier
BON-L NCR: Yes No DQA: 2 Date: 06/04/12
 QA: N/C Closed: _____ Date: _____

NCR: <u>24866</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>05-11-30</u>	<u>2</u>	<u>1x D2500-1-100 was cut too length, and a crack was found in the material at the index ridge location.</u>	<u>[Signature]</u>	<u>Scrap tube, apply for credit. Replace: Batch <u>24593</u> from supplier Bon L Alum. See Attached E-mail from supplier.</u>	<u>DP</u> <u>05-11-30</u>	<u>2</u> <u>05-11-30</u>	<u>[Signature]</u>	<u>2</u> <u>05-11-30</u>

NOTE: Date & initial all entries

Date: Friday, 11/18/2005 3:15:04 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 24866

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description :

4.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

~~24866~~ 9.m 06-01-07 (2)

5.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

M DL 06/0

6.0

D33891

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)

WEB

Pick:

Qty

Part Number

Description

Batch

1

D3389-1

Web

B 24886

A/R

Sikaflex-241/-291

M 19134

Sikaflex expire date:

06-06-20

am 06-01-07 (2)

Start: 06-01-07 Time: 11:15

Finish: 06-01-07 Time: 8:10 A.m

7.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Bond web in place as per Dwg D3391 & QSI 015.

Adhere for 12 hours)

9.m 06-01-07 (2)

8.0

NAS1330C3KB116

Insert



Comment: Qty.: 20.0000 Each(s)/Unit Total: 100.0000 Each(s)

Insert

Pick:

Qty

Part Number

Description

Batch

20

NAS1330C3KB116

Insert

M 19014

FC 06 04 05 (1)

9.0

NAS1330C3KB166

Rivnut



Comment: Qty.: 10.0000 Each(s)/Unit Total: 50.0000 Each(s)

Rivnut

Pick:

Qty Part Number

Description

Batch

10

NAS1330C3KB166

Insert

M 18308

FC 06 04 05 (1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-023 PAR #: N/A Fault Category: Prod / Landing gear NCR: ☒ Yes ☐ No DQA: JD Date: 06/04/12
 QA: N/C Closed: JD Date: 06.04.12

NCR: <u>24866</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06-04-05	7	Mid tube scrap, web not perfectly centered in tube. And D3391-021 find and hit to web, and doesn't install properly	<u>JD</u> 06/04/12	Scrap mid tube... destroy...	<u>JD</u> 06-04-05	<u>JD</u> 06-04-05	<u>JD</u> 06/04/12	<u>JD</u> 06-04-05

NOTE: Date & initial all entries

Date: Friday, 11/18/2005 3:15:04 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 24866

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description :

10.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1
Install inserts as per Dwg D3391

FC 06 04 05 (1)

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

MI 06 04 05 (1)

12.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING
Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3
Use paint screws to mask inserts.

g.m. 06/04/05 (1)

13.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

MAC 06/04/05 (1)

14.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Identify and Stock
Location: _____

N/A

15.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL
Inspection Level 21

DD 06/04/12 (1)

Job Completion



W 06/04/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

XXXXXXXXXX

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Nov 17, 2005
03:30 pm

Work Order No	: 0024866	Department Code:	
Project Name	: D3391-023	Burden Flags	: NNNNNNN
Project For	: WK550	WO Status	: Open
Work Order Type	: Main	Invoice State	: Not Invoiced
Main WO Number	:	Invoice Date	:
House Part Number	: D3391-023	Invoice Number	:
Description	: Mid Tube Assembly	Invoice Amount	: 0.00
Manufactured	: Yes	Order Entry No	:
Amount Req'd	: 5	OE Value	: 0.00
Amount Done	: 0	Est Margin	: 0.000%
Start Date	: 11-17-05	Actual Margin	: 0.000%
Est Finish Date	: 12-20-05		
Act Finish Date	:		
Drawings Req'd	: No		
Ok for Approval	:		
Approval Rec'd	:		

\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	: 0.00	0.00	0.00	0.00	0.00
Engineering Hours	: 0.00	0.00	0.00		
Engineering Cost	: 0.00	0.00	0.00	0.00	0.00
Production Hours	: 0.00	0.00	0.00		
Production Cost	: 0.00	0.00	0.00	0.00	0.00
Packaging Hours	: 0.00	0.00	0.00		
Packaging Cost	: 0.00	0.00	0.00	0.00	0.00
OverHead Hours	: 0.00	0.00	0.00		
OverHead Cost	: 0.00	0.00	0.00	0.00	0.00
CNC Hours	: 0.00	0.00	0.00		
CNC	: 0.00	0.00	0.00	0.00	0.00
Misc. Hours	: 0.00	0.00	0.00		
Misc.	: 0.00	0.00	0.00	0.00	0.00
Burden	: 0.00	0.00	0.00		
Total Cost	: 0.00	0.00	0.00		
Margin	: 0.000	0.000			
Selling Cost	: 0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done	: 0.00	0.00
Profits/(Loss)	: 0.00	0.00

Linda Lacelle

From: Burton, Doris [DBurton@bonlalum.com]
Sent: Wednesday, November 30, 2005 11:15 AM
To: 'Linda Lacelle'
Subject: FW: RE: P.O 2008841 DAA-897105 SO# 73845010

Linda, please look at the answer from Conchita below. She is our Quality Control Manager. Let me know if there is anything that you want to return. Otherwise, I will enter this as an official complaint. Waiting to hear from you.
Regards,

Doris Burton, Customer Account Rep.
Tel: 1-800-563-1079 Fax: 1-800-565-8339
Please visit us at WWW.bonlalum.com

-----Original Message-----

From: Ko, Conchita
Sent: Wednesday, November 30, 2005 10:41 AM
To: Burton, Doris; Sullivan, Larry
Subject: RE: RE: P.O 2008841 DAA-897105 SO# 73845010

Doris,

I have discussed with Larry. this is a condition where the skin of the billet is extruded into the metal. We do not expect this to exceed 250mm into the extrusion. See if the customer is willing to cut the metal. The condition is now under control. Press parameters are adjusted so that this condition will not happen again.

Conchita

-----Original Message-----

From: Burton, Doris
Sent: Wednesday, November 30, 2005 9:13 AM
To: Sullivan, Larry; Ko, Conchita
Subject: FW: RE: P.O 2008841
Importance: High

This refers to our sales order # 73945-1 shipped 10/31. This is die DAA-897105.
I do not know how many pieces are affected. Customer wants to know what it is.
Please advise. Thank you.

Doris Burton, Customer Account Rep.
Tel: 1-800-563-1079 Fax: 1-800-565-8339
Please visit us at WWW.bonlalum.com

-----Original Message-----

11/30/2005

Split

Dart Aerospace Ltd.

Friday 11/18/2005 3:15:04 PM
Linda Lacelle

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: MID TUBE ASSEMBLY
Job Number	: 24866 A		
Estimate Number	: 10469	Part Number	: D3391023
Job Number	: NIA	Drawing Number	: D3391 REV.C
Issue	: 11/18/2005 S.O. No. : NIA	Project Number	: NIA
First Rev.	: NC	Drawing Revision	: C
Job Issue	: NIA Type : LANDING GEAR	Material	: NIA
Previous Run	: 24442	Due Date	: 12/20/2005
Drawn By	: <i>See comment below</i>	Qty:	5 Um: Each
Checked & Approved By	: <i>See comment below</i>		
Comment	: Est. A 05.10.20 New Issue KJ/EC		

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

10

D25001100

Skidtube Extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)

SKIDTUBE EXTRUSION

Pick:

Qty	Part Number	Description
1	D2500 1-100	Extrusion

Batch

B24593

20

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Cut tube to finish length as per Dwg D3391

2-Identify as D3391-023

3-Drill pilot holes using DT8796 as per Dwg D3391

4-Open float bag holes to Ø0.250" as per Dwg D3391 using DT8796D visual aid Jig

5-C/sink float bag holes as per Dwg D3391

6-Open remaining holes to Ø0.438" as per Dwg D3391

7-Remove indexing ridge on aft end of skidtube as per Dwg D3391

8-Deburr

9-Drill #30 pilot holes using wearplate Jig DT8217/Identify Ø0.208" holes with paint marker

10-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.208" (14 holes) as per Dwg D3391

11-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.250" and c/sink (20 holes) as per Dwg D3391

12-Deburr and blow out all chips from inside tube

DP 05-11-30 (5)

DP 05-11-30 (5)

DP 05-11-30 (5)

DP 05-11-30 (5)

DP 05-11-30 (2)

DP 05-12-12 (5)

DP 05-12-12 (5)

DP 06-1-7 (2)

DP 06-1-7 (2)

DP 06-1-7 (2)

DP 06-1-7 (2)

DP 06-1-7 (2)

30

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

206-01-09

Friday, 11/18/2006 3:15:04 PM

Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 24886

Part Number: D3391023

Job Number:



Seq:

Machine Or Operation:

Description:

4.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

~~15-07-07~~ 9m 06-01-07 (2)

5.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

J 06-01-07

6.0

D33891

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)

WEB

Pick:

Qty

Part Number

Description

Batch

1

D33891

Web

B 24886/B26589

AR

Sikaflex-241/-291

M 19134

Sikaflex expire date:

06-06-20/06-11-01

Start:

Time:

11-15

06-04-11

2:00pm

Finish:

Time:

8:10 AM

06-04-12

7:00am

M 19134 / M 19134 06-01-07 (2)

7.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Bond web in place as per Dwg D3391 & QSI 015:

BT 06-04-11 (2)

Adhere for 12 hours)

9m 06-01-07 (2)

8.0

NAS1330C3KB116

Insert



Comment: Qty.: 20.0000 Each(s)/Unit Total: 100.0000 Each(s)

Insert

Pick:

Qty

Part Number

Description

Batch

20

NAS1330C3KB116

Insert

19349
M 19014a.m 06-05-08 (1)
FC 06 01 09

9.0

NAS1330C3KB166

Rivnut



Comment: Qty.: 10.0000 Each(s)/Unit Total: 50.0000 Each(s)

Rivnut

Pick:

Qty Part Number

Description

Batch

10

NAS1330C3KB166

Insert

M 100732
M 19354a.m 06-05-08 (1)
FC 06 01 09













Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 24866

Part Number: D3391023

Seq. #	Machine Or Operation:	Description :
11.0 11.0 12.0	LANDING GEAR 1 	LANDING GEAR RESOURCE 1 
Comment: LANDING GEAR RESOURCE 1 Install inserts as per Dwg D3391 <i>a.m 06/07/29 FC 06 01 09</i>		
12.0 12.0 13.0	QC5 	INSPECT WORK TO CURRENT STEP 
Comment: INSPECT WORK TO CURRENT STEP <i>DL 06/05/18 06 01 12</i>		
10.0 10.0 10.0	POWDER COATING 	POWDER COATING 
Comment: POWDER COATING Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3 Use paint screws to mask inserts. <i>DL 06/05/01 06 01 09 (1)</i>		
11.0 11.0 11.0	QC3 	INSPECT POWDER COAT/CHEMICAL CONVERSION 
Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION <i>DL 06/05/12 06 01 12 (1)</i>		
14.0 14.0 14.0	PACKAGING 1 	PACKAGING RESOURCE #1 
Comment: PACKAGING RESOURCE #1 Identify and Stock Location: <i>N/A</i> <i>DL 06/05/25 (1)</i>		
15.0 15.0 15.0	DC 	DOCUMENT CONTROL 
Comment: DOCUMENT CONTROL Inspection Level 21 <i>54C 06/01/12 (2)</i> <i>DL 06/01/12 (2)</i> <i>W Dews. 79</i>		
Job Completion	